Isaac Cheung

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Education

University of British Columbia — *Vancouver, BC*

Bachelor of Science in Computer Science, 4th Year Standing — *September 2018 - April 2022*

- **Major GPA: 4.10/4.33**
- **GPA: 3.88/4.33**
- **Dean's Honour List**

Experience

Amazon Web Services (AWS) — *Remote | Palo Alto, CA*

Software Development Engineer Intern — *February 2021 - August 2021*

- Designed and implemented remote execution support using VMware APIs, allowing customers to provide vCenter credentials to authenticate and connect to their remote servers.
- VMware remote execution feature provides a scalable solution to the Optimus Connector setup process, saving time and money for customers.
- Written in Golang using Cobra, a library for building command line interfaces, and integrated seamlessly into the Optimus Connector using Java.
- Integrated the AWS Schema Conversion Tool into the Optimus Service, allowing Optimus to generate recommendations for database migrations.
- Modified the service API and Optimus Connector to incorporate the Schema Conversion Tool into the workflow. Done using Java.
- Leveraged native AWS services, such as; S3, DynamoDB, AWS Lambda, API Gateway, Cloud Watch, and Cloud Formation.
- Wrote unit tests and integration tests, and led all end-to-end testing for the features that I worked on.

Amazon Web Services (AWS) — *Remote | Palo Alto, CA*

Software Development Engineer Intern — *May 2020 - September 2020*

- Reduced the Server Migration Service's console load time latency by over 60% through various API optimizations, such as leveraging global secondary indexes in DynamoDB to improve filtering. Done using Java.
- Increased the region build automation's coverage from 60% to 90% and removed deprecated dependencies.
- Done through a refactoring of the team's automated region build code using an internal framework in Ruby.

BGC Engineering — *Vancouver, BC*

Web & Mobile Development Intern — *January 2020 – May 2020*

- Added functionality on map identify tool, enabling the tool to select polygon geometry based target objects. This was done with TypeScript.
- Solved numerous concurrency issues related to the web form logic in TypeScript.
- Created new React web form and web form components to support engineers in the field, allowing them to electronically document inspections and remotely sync the data on various hazard sites.
- Decreased the Jira backlog by over 10% by fixing numerous bugs in both front and back end of the code base using TypeScript, C#, and SQL Server.

Projects

Discord Bots

Technologies used: JavaScript, Node.js, Discord.js, Unsplash API, Heroku — *January 2019*

- Developed multiple Discord bots with best practices in mind, such as dynamic command handling.
- Bots can do things such as; automate the process of mass deleting server messages with ability to search and filter messages to include or exclude attributes such as the message author, react to messages based on keyword matching, and retrieve random photos of seal using the the Unsplash API.
- Properly deployed on Heroku to be used on discord servers, set up to automatically redeploy when code changes are pushed to the Github repository's main branch.

League of Legends Profile Analyzer

Technologies used: Java, Java Swing, Riot API — *September 2018*

- Extracts data from player profiles using the Riot API and stores them in profiles to analyze and compare, built in Java.
- Incorporated Object Oriented Programming and design patterns to solve problems that were encountered during development, including the iterator and observer design patterns.
- Unit testing was done with JUnit to ensure the correctness of code.

Skills

Languages	Python, Java, C, C++, C#, TypeScript, JavaScript, Ruby, Golang, SQL, NoSQL, Haskell, Prolog
Version Control Systems	Git / Github
Testing	JUnit, Mockito, PowerMock, Mocha
Other Technical Skills	HTML, CSS, React.js, Node.js, Express.js, Three.js, Swing, Cobra, AWS, Heroku